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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, NE
ATLANTA, GEORGIA 30365

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3684

MEMORANDUM

Date: May 5, 1992

Subject: Olin Corporation, McIntosh Plant Site, McIntosh, Alabama

From: Lynn H. Wellman, ETAG Coordinator

Thru: Elmer Akin, Health Assessment Officer

To: Cheryl Smith, Remedial Project Manager
South Superfund Remedial Branch

I have reviewed the Revised Sampling and Analysis Plan for the above referenced facility. A discussion of my comments is followed by a section to be forwarded to the PRP.

My comments concern the elimination of DDT and its breakdown products from the scope of the investigation (Comment Number 1), the evaluation of the metal levels found in the sediment samples (Comment Number 2), and additional parameters, samples, and locations to be added to the proposed work plan (Comment Numbers 3, 4, and 5, respectively).

The elimination of chemical compounds (DDT and other pesticides) from the analysis of samples based on the fact or conjecture that those compounds were not associated with the site is not appropriate when collecting information for an ecological risk assessment. While, in this instance, there is another possible source, the description of the ecological risks will be incomplete if these compounds are not addressed in the investigation of this facility.

The Region IV Sediment Screening Values for Hazardous Waste sites should be used in evaluating sediment contaminant levels. Background levels of contaminants may pose an ecological risk, but this factor would be taken in consideration in evaluation of remedial options. Background values should be based on site-specific or regional data.

The sediment/soil samples should be analyzed for the TCL Pesticides, as discussed above, and the Total Organic Carbon and grain or particle size analysis. The last two parameters will provide information which will aid in the interpretation of the contaminant levels.

The PRP should present a work plan element to collect biota samples since the focus of this investigation is highly bioaccumulative compounds. Candidate target species would include

invertebrates such as earthworms, which would serve as a food source for songbirds; small mammals, which would serve as food source for raptors, and other predators; and snake species which would serve as a representative of a predator trophic level.

My final recommendation is to include sampling stations on the west side of the basin which would also undergo seasonal flooding and possible deposition of contaminants.

Please forward the following comments to the PRP, verbatim, if you concur. If you should have any questions please do not hesitate to contact me at x1586.

1. Horizontal Extent of Organic Constituents, Page 23 - The fact that DDT was not believed to have originated from Olin's facility does not exempt it, or its degradation products, from the scope of this investigation. Chlorinated pesticides have a high potential to produce ecological effects. These potential effects must be addressed in the ecological risk assessment, regardless of source. Possible remedial actions will be considered in the evaluation of the management options, which would include the consideration of the source of contaminants.

2. Selected TAL Metals, Page 24 - 26 - Region IV Sediment Screening Values for Hazardous Waste Sites should be used in evaluating sediment metal concentrations, in addition to regional background values. The Region IV Sediment Screening Values for Hazardous Waste Sites are based on NOAA's Biological Effects Range Values as identified in the document cited below. The maximum values of antimony, lead, and zinc appear to have exceeded these screening values.

   Long, Edward R., and Lee G. Morgan. 1990. The potential for biological effects of sediment-sorbed contaminants tested in the National Status and Trends Program. NOAA Technical Memorandum NOS OMA 52. Office of 'Oceanography and Marine Assessment, Seattle, Washington.

3. 4.2 Operable Unit 2 Sampling Activities, Page 46 - The sediment/soil samples should also be analyzed for the TCL Pesticides, Total Organic Carbon (TOC), and grain or particle size.

4. 4.2 Operable Unit 2 Sampling Activities, Page 46 - Biota samples should also be collected since highly bioaccumulative contaminants are the focus of the investigation. Invertebrate and vertebrate food items for avian species, such as

earthworms and small mammals, as well as a predator snake species would be appropriate target species.

5. 5.2 Operable Unit 2, Page 48 - Additional stations should be located on the west side of the basin.